INSTRUCTIONS

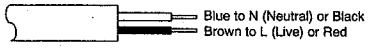
Safety Precautions

The rating plate and the safety caution are on the rear of the unit.

WARNING: DANGEROUS VOLTAGE INSIDE
WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

IMPORTANT

Connection to the mains supply in the United Kingdom.
DO NOT cut off the mains plug from this equipment.
If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain a proper safety approved extension lead/adapter or consult your dealer.
BE SURE to replace the fuse only with an identical approved type, as originally fitted, and to replace the fuse cover.
If nonetheless the mains plug is cut off remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.
If this product is not supplied fitted with a mains plug then follow the instructions given below:
DO NOT make any connection to the Larger Terminal coded E or Green.
The wires in the mains lead are coloured in accordance with the following code:



If these colours do not correspond with the terminal identifications of your plug, connect as follows:
Blue wire to terminal coded N (Neutral) or coloured Black.
Brown wire to terminal coded L (Live) or coloured Red.
If in doubt — consult a competent electrician.

CAUTION

- When you are not using the recorder for a long period of time, it is recommended that you disconnect the power cord from the mains outlet.
- Dangerous voltage inside. Refer internal servicing to qualified service personnel. To prevent electric shock or fire hazard, remove the power cord from the mains outlet prior to connecting or disconnecting any signal lead or aerial.

IMPORTANT

- Please read the various precautions on p. 2 – 3 of this instruction manual before installing or operating the recorder.
- It should be noted that it may be unlawful to re-record pre-recorded tapes, records, or discs without the consent of the owner of copyright in the sound or video recording, broadcast or cable programme and in any literary, dramatic, musical, or artistic work embodied therein.

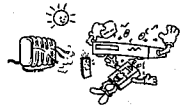
The OPERATE button does not completely shut off mains power from the unit, but switches operating current on and off.

Video tapes recorded with this video recorder in the LP (Long Play) mode cannot be played back on a single-speed video recorder.

Some Do's And Dont's On The Safe Use Of Equipment

This equipment has been designed and manufactured to meet international safety standards but, like any electrical equipment, care must be taken if you are to obtain the best results and safety is to be assured.

DO read the operating instructions before you attempt to use the equipment.
DO ensure that all electrical connections (including the mains plug, extension leads and interconnections between pieces of equipment) are properly made and in accordance with the manufacturer's instructions. Switch off and withdraw the mains plug when making or changing connections.
DO consult your dealer if you are ever in doubt about the installation, operation or safety of your equipment.
DO be careful with glass panels or doors on equipment.
DON'T continue to operate the equipment if you are in any doubt about it working normally, or if it is damanged in any way — switch off, withdraw the mains plug and consult your dealer.
DON'T remove any fixed cover as this may expose dangerous voltages.
DON'T leave equipment switched on when it is unattended unless it is specifically stated that it is designed for unattended operation or has a standby mode. Switch off using the switch on the equipment and make sure that your family knows how to do this. Special arrangements may need to be made for infirm or handicapped people.
DON'T use equipment such as personal stereos or radios so that you are distracted from the requirements of road safety. It is illegal to watch television whilst driving.
DON'T listen to headphones at high volume, as such use can permanently damage your hearing.
DON'T obstruct the ventilation of the equipment, for example with curtains or soft furnishings. Overheating will cause damage and shorten the life of the equipment.
DON'T use makeshift stands and NEVER fix legs with wood screws — to ensure complete safety always fit the manufacturer's approved stand or legs with the fixings provided according to the instructions.
DON'T allow electrical equipment to be exposed to rain or moisture.
ABOVE ALL
— NEVER let anyone especially children push anything into holes, slots or any other opening in the case — this could result in a fatal electrical shock;
— NEVER guess or take chances with electrical equipment of any kind — it is better to be safe than sorry!

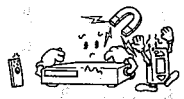

Avoid extreme heat and direct sunlight

Avoid dust

Avoid extreme cold

Avoid places subject to vibrations

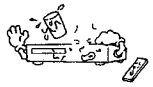
Avoid extreme humidity


Avoid strong magnetic fields

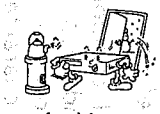
Please follow these safety precautions. Not doing so may result in damage to the recorder, remote control, or video cassette.

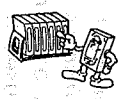
Do not place anything heavy on the recorder or remote control

Do not place the recorder on cushions, pillows, or thick carpeting


Do not place anything which might spill on top of the recorder or remote control

Use the recorder in a stable, horizontal position only

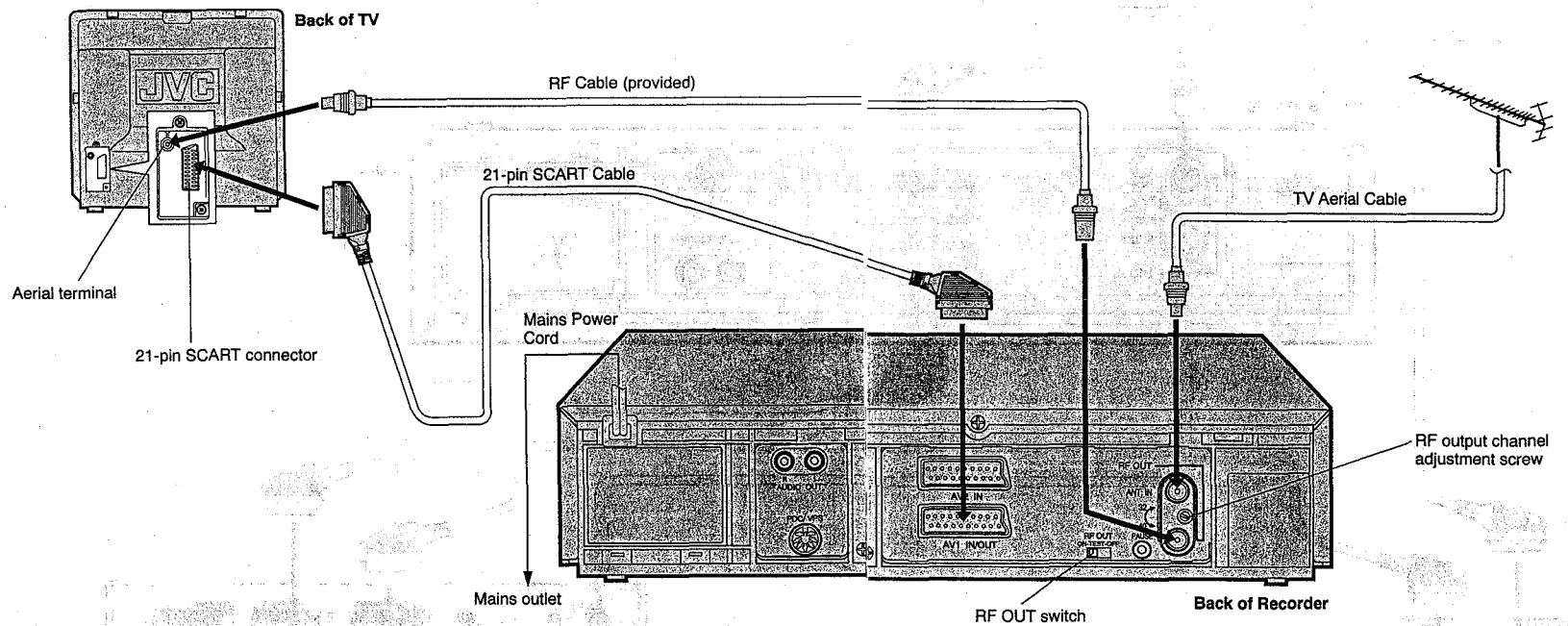

Beware of moisture condensation
Moisture in the air will condense on the recorder when you move it from a cold place to a warm place, or under extremely humid conditions — just as water droplets form on the surface of a glass filled with cold liquid. Moisture condensation on the head drum will cause damage to the tape. In conditions where condensation may occur, keep the recorder's power turned on for a few hours to let the moisture dry.


Place cassettes in cassette cases and store vertically

When transporting
- Be sure to remove cassette from recorder before packing
- Avoid violent shocks to the recorder during packing and transport

Installation

It's essential that your video recorder be properly connected. Follow these steps carefully. THESE STEPS MUST BE COMPLETED BEFORE ANY VIDEO OPERATION CAN BE PERFORMED.



RECORDER-TO-TV CONNECTION

RF CONNECTION

For TV sets without AV input terminals:

1. Connect the TV aerial cable to the recorder.
2. Connect the recorder with the provided RF cable to the TV's aerial terminal.

AV CONNECTION

For TV sets with AV input terminals:

1. Connect the aerial, recorder and TV as per "RF CONNECTION".
2. Connect the recorder with an optional SCART cable to the TV's 21-pin SCART connector.
3. Set the RF OUT switch to OFF.

CONNECT RECORDER TO MAINS

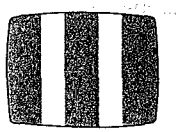
1. Plug the end of the mains power cord into mains outlet.

TUNE THE TV TO YOUR VIDEO RECORDER

The video recorder sends picture and sound signals via the RF connecting cable to your TV on UHF channel 36.

TEST SIGNAL

1. Turn on the recorder.
2. Set the RF OUT switch to TEST.
3. Set your TV to the video preset. Tune the TV to bring the two vertical white bars on the screen most clearly. (UHF/CH 36)
   - Your TV should be set to the preset designated for use with a video recorder or to a spare preset if there is not a specified video preset on your TV.
4. Reset the RF OUT switch to ON.



NOTE:

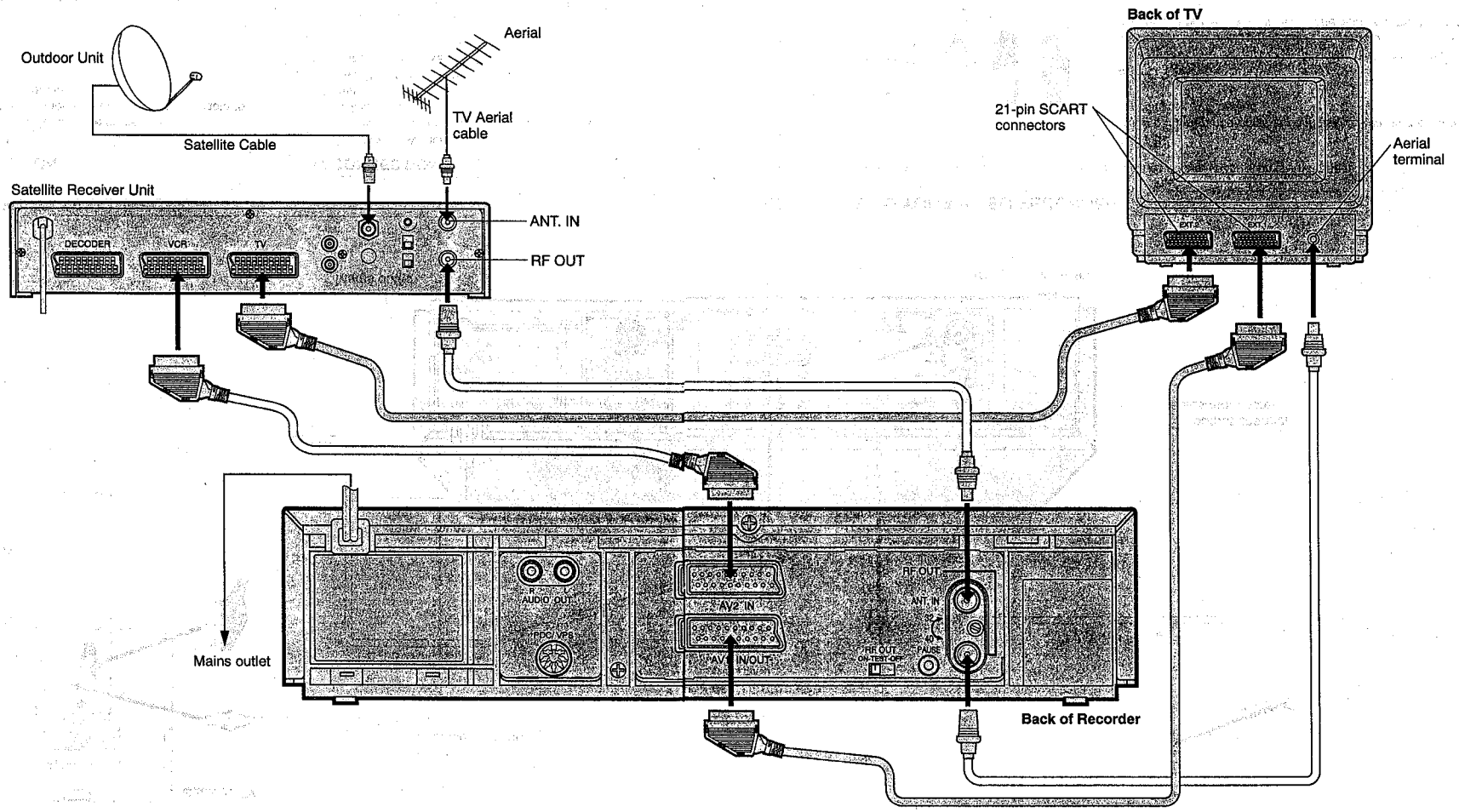
If some interference noise is continually seen on the screen, consult your JVC dealer.

IMPORTANT:

To operate the recorder with your TV using the RF connection, it is always necessary to set your TV's preset to the VIDEO preset. With an AV connection, set the TV to the VIDEO (or AV) mode.

Installation (cont'd)

The AV2 IN socket on the rear panel of your recorder allows simple connection to a satellite receiver.

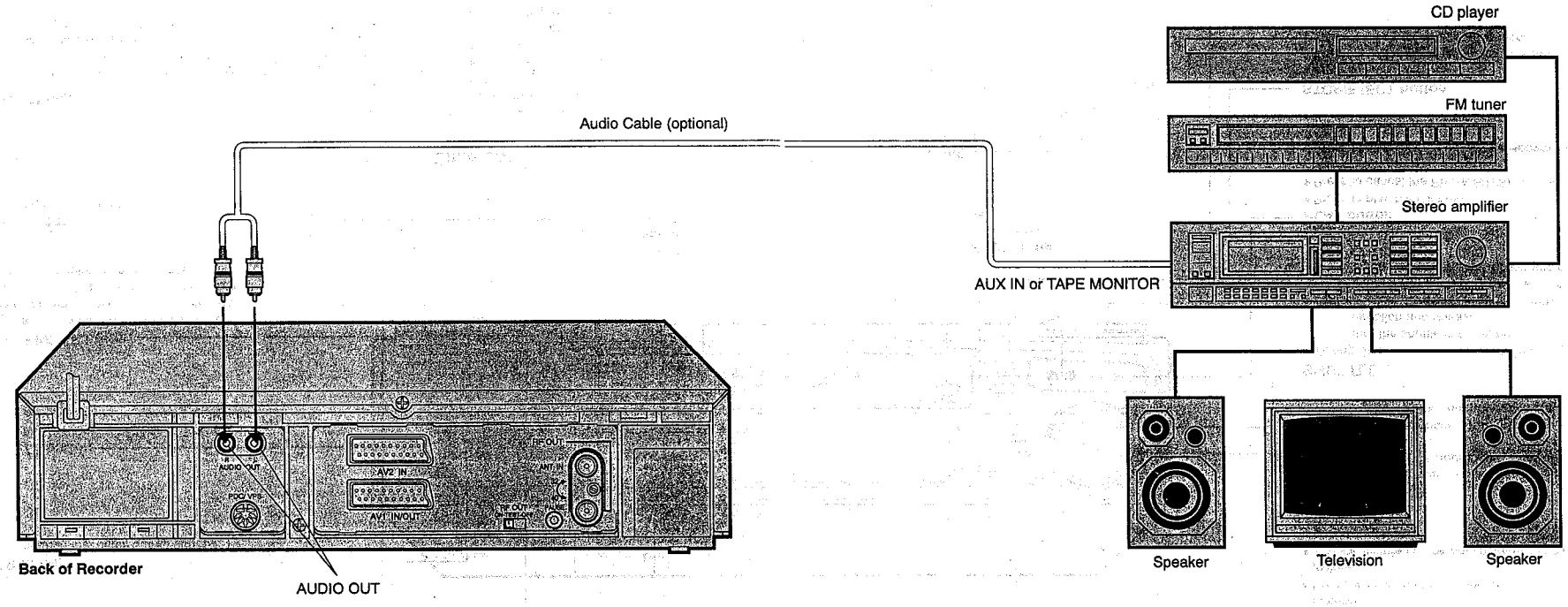


NOTES:

- *When connecting your recorder to a TV equipped with 21-pin SCART connectors, follow the illustration above using the cables shown in gray.*
- *For details, check your satellite receiver's instruction manual.*

Installation (cont'd)

If you have a Hi-Fi stereo system and would like to connect your video recorder to it so that the sound can be heard through your Hi-Fi system, please make these additional connections:



TO CONNECT TO A STEREO SYSTEM

1 Connect the AUDIO OUT L and R connectors of the recorder to the AUX IN or TAPE MONITOR terminals of the amplifier.

NOTES:

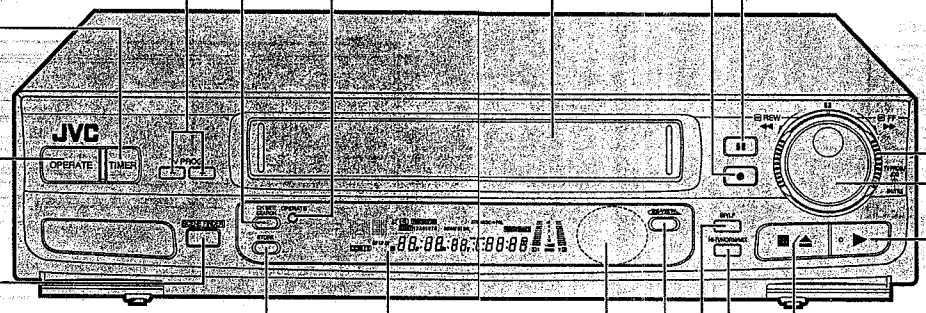
- *Make sure L and R are correct when connecting the audio output connectors of the recorder to a stereo amplifier.*
- *If NICAM TV broadcasts are receivable in your area, this recorder can record them independently of the TV set and play them back through the connected audio system.*
- *When listening to sound from the connected stereo system, turn down the sound volume of the TV completely.*

CAUTION:

- This recorder has a dynamic range of more than 90 dB with regards to its hi-fi audio capability. It is recommended that you check the maximum level if you are going to listen to the hi-fi audio signals through a stereo amplifier. A sudden surge in speaker input may cause speaker damage.
- Some speakers and televisions are specially shielded to prevent television interference. If both are of the non-shielded type, do not place the speakers adjacent to the TV set, otherwise the video playback picture may be adversely affected.

Control And Indicators

Front Panel



CH SET/SEARCH button
- Press more than 2 seconds to select the Tuning mode.
- Press while in the Tuning mode to start semi-automatic channel search.

Cassette loading slot
Insert a VHS cassette. The door will close and the "cassette loaded" indicator will appear on the FDP (fluorescent display panel).

REC/ITR button
- Press once to start recording.
- Press twice to engage Instant Timer Recording (ITR).
- Also use to set the required recording time for ITR.

TV PROG. buttons
Press either button to scan to a desired channel.

OPERATE Indicator

PAUSE/STILL button
- Press while in the Record mode to stop the tape temporarily to avoid recording of unwanted material.
- Press while in the Play mode to view a still picture.
- The still picture can be advanced each time this button is pressed.

TIMER button
Press to engage the Timer Standby mode.

TV PROG./JOG
- During Stop : To scan to a desired preset, turn the dial in the appropriate direction and release it.
- During Still or Playback : Turn the dial to the right or left for frame-by-frame playback.

OPERATE button
Press to turn the recorder ON or OFF. The indicator will light when ON. Loading a cassette also turns the power on.

SHUTTLE
- During Stop : To rewind or fast-forward the tape, turn the shuttle in the appropriate direction and release it.
- During Still or Playback : Turn the Shuttle to the right for forward slow motion and search, or left for reverse slow motion and search.

SCENE FINDER button
Press to start "Scene Finder" function which alternates between Fast Forward (or Rewind) and Shuttle Search at regular intervals to check contents of unlabeled recorded tapes.

PLAY button
- Press to play back a tape.
- Press to cancel the Pause/Still/Slow or Shuttle Search. (☞ p. 21)
- Press to start recording from the Record-Pause mode.

STORE button
Press to store a TV station in the Tuning mode.

Fluorescent Display Panel (FDP)

SP/LP button
Press to select the recording speed (SP or LP).

REVIEW button
- The button will light after the recorder finishes timer-recording.
- Press to "review" a TV programme you have timer-recorded. (The button blinks when the tape is being rewound.)

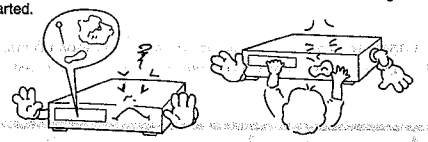
STOP/EJECT button
- Press to stop the tape.
- If already stopped, press to eject the tape.
- Press to disengage the Tuning mode.

Infrared beam receiving window

Hi-Fi/NORM/MIX
Press to select the soundtrack.
- Hi-Fi : The Hi-Fi(stereo) tracks.
- NORM : The normal(monaural) tracks.
- MIX : Both the Hi-Fi and normal tracks.

WARNING

- Do not insert fingers or foreign objects into the cassette loading slot since this could lead to injury or damage to the mechanism. Be especially careful with children.
- Do not try to pull out a cassette once automatic loading has started.



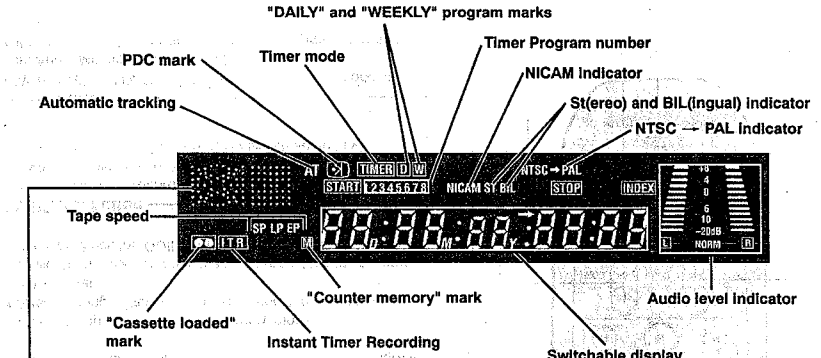
Child Lock

To avoid unwanted operation and prevent accidental recording...

1. Press the remote control's OPERATE button to turn the recorder's power off. Keep this button pressed for about 2 more seconds after the power LED indicator has gone off.
   - The Child Lock indicator (–) will appear on the display panel.
2. Child Lock is cancelled when you switch the recorder's power on with the remote's OPERATE button.
   - Pressing the TIMER button during timer-recording also cancels the Child Lock mode.

Controls And Indicators (cont'd)

Display Panel



Symbolic mode indicators

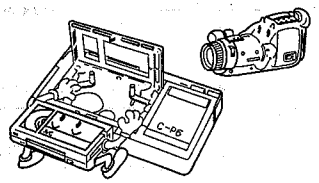
PLAY:	▷	REVERSE PLAY:	◁
FF:	▷▷	STILL: FORWARD SLOW:	▷ ▯▯
REW:	◁◁	STILL: REVERSE SLOW:	◁ ▯▯
FF VARIABLE SHUTTLE SEARCH:	▷ ▷▷ *	RECORD:	○
REW VARIABLE SHUTTLE SEARCH:	◁ ◁◁ *	RECORD PAUSE:	○ ▯▯

* The indicator will blink during turbo search.

Usable Cassettes

Full-Size VHS
E-30 (SE-30**)
E-60 (SE-60**)
E-90
E-120
E-180 (SE-180**)
E-240

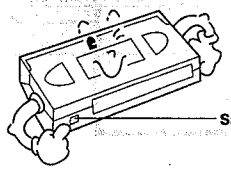
Compact VHS*
EC-30 (SE-C30**)
EC-45 (SE-C45**)



* Compact VHS camcorder recordings can be played on this video recorder. Simply place the recorder cassette into a C-P6 Cassette Adapter and it can be used just like any full-sized VHS cassette.
** This video recorder can record on regular VHS and Super VHS cassettes. However, it will record and play back regular VHS signals only. It is not possible to play back a recorded Super VHS tape.

Accidental Erasure Prevention

To prevent accidental recording on a recorded cassette, remove its safety tab. To record on it later, cover the hole with adhesive tape.



Rear Panel

AV1 IN/OUT socket
A 21-pin standardised audio/video input/output (SCART) socket for AV connection to a TV or a 2nd video recorder. The input from this socket can be recorded in the AUX mode engaged by obtaining "AU 1" in the preset position display.

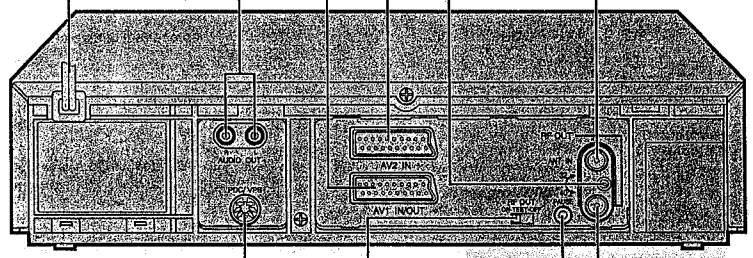
AUDIO OUT(PUT) connector (L/R)
For connection to the audio input connectors on a TV set, a VCR, or an audio tape recorder.

Mains power cord

AV2 IN socket
A 21-pin audio/video input socket for connection to a satellite receiver or a 2nd video recorder.
The input from this socket can be recorded in the AUX mode engaged by obtaining "AU 2" in the preset position display.

RF converter frequency adjustment screw (CH40 – CH32)
With RF connection, picture and sound signals are sent to channel 36 on a TV. If 36 is occupied by a local station, the channel can be adjusted by ±4 (CH 32 through CH 40).

Aerial Input connector (ANT. IN)
Connect an aerial to this connector.



PDC/VPS connector
Connect PDC/VPS adapter (VU-V115E) to take advantage of PDC recording (☞ p. 34).

RF OUT switch
- Set to ON if you are using RF connection. (☞ p.4)
- Set to TEST when tuning your TV receiver for the video preset. A test signal in the form of two vertical white bars will be available. (☞ p.5)
- Set to OFF if you are using AV connection. (☞ p.4)

RF OUT connector
Connect to the aerial terminal of a TV receiver using the provided aerial cable.

PAUSE connector
Connect to a 2nd Video recorder which has an R.A. EDIT connector or to a JVC camcoder which is equipped with the Master Edit Control system (☞ p. 36).

Controls And Indicators (cont'd)

Remote Control Unit

OPERATE button
Press to turn the recorder ON or OFF.
Keep this button pressed for 2 seconds when turning the power off to engage the Child Lock mode.

REVIEW button
Press to "review" a TV programme you have timer-recorded. (☞ p. 22)

Multi-purpose numeric keys
Clock setting:
Channel selection:
Timer Programming:
External Source recording:

CANCEL/C. RESET button
- Press to cancel a programme in the Timer Set mode.
- Press to reset the counter to "0:00:00".
- Press to delete a TV station in the Tuning mode.

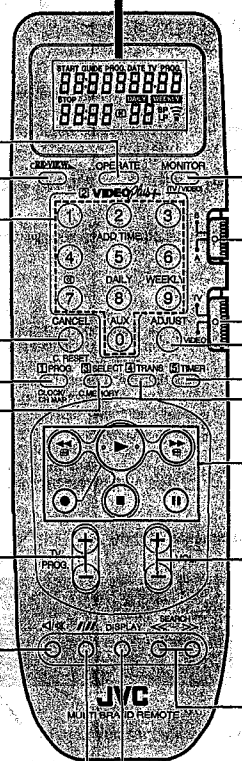
PROG./CLOCK/CH MAP button
- If the clock has not been set, press to begin clock setting.
- If the clock has already been set, each press rotates the display: Video Plus+ Timer Program → LCD Timer Program → Clock Set mode → Channel Map mode.

SELECT/C. MEMORY
- Press to change the data in the Clock Set or Timer Program mode.
- Press to engage the Counter Memory mode.
- After entering a PlusCode, press to check or correct the entered data.
- While the remote control is in the Channel Map mode, press to set or check the GUIDE PROG. and TV PROG. number.

TV PROG. button
Press to select the recorder's preset position number with the TV/VIDEO switch set to "VIDEO"; or to select the TV's preset position number with the TV/VIDEO switch set to "TV".

🔇/🔇 button
- When the TV/VIDEO switch is set to "VIDEO", it works as an Audio Monitor button.(☞ p. 23)
- When the TV/VIDEO switch is set to "TV", press to mute the TV's sound.

/// button
- When the TV/VIDEO switch is set to "VIDEO", press to select the tape speed for recording.
- When the TV/VIDEO switch is set to "TV", it works as a digit entry button to select the TV's channel (☞ p. 37).



MONITOR button
Press to select the TV's operating mode
TV: For viewing broadcast programmes or tape programmes via RF OUT connection.
VIDEO: For viewing programmes via the AV connection.

A/B CODE switch
When operating two JVC video decks, use to switch this remote control from the "A" mode to "B" mode, or vice versa, depending on the deck to be controlled.

TV/VIDEO switch
Set to "VIDEO" to operate the recorder; set to "TV" to operate the TV (☞ p. 37).

ADJUST button
Press to check timer program settings.

TIMER button
Press to set the recorder to Timer mode.

TRANS button
Press to transfer the data to the recorder.

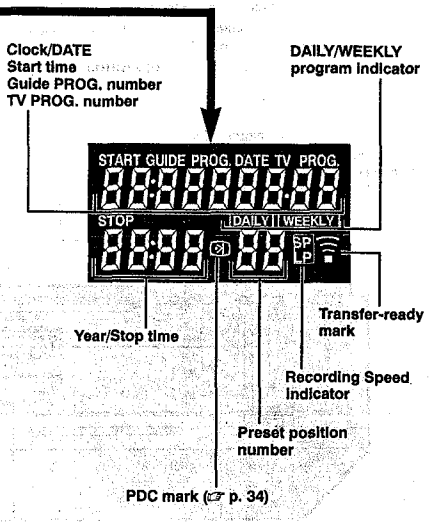
Basic Functions
◄◄/►► (Rewind)(Fast-Forward)(Shuttle Search) buttons
► (Play) button
● (Record) button
Press together with the ► button to start recording.
■ (Stop) button
II (PAUSE/STILL/SLOW) button

VOL. button
Use to adjust the TV's sound volume.

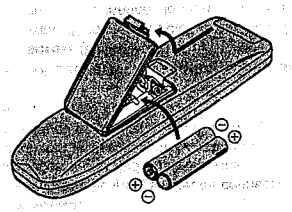
SEARCH buttons
- Press either button during playback to search for specific segments of a programme at variable speeds.
- Press either button while the tape is stopped for automatic Index Search.
- When the TV/VIDEO switch is set to "TV", it works as +10 and +20 buttons to select the TV's channel (☞ p. 37).

DISPLAY button
Press to switch the display among the time, date and counter reading .

LCD (Liquid Crystal Display) Panel



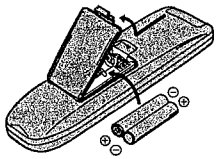
Installing Batteries
1. Open the battery compartment cover.
2. Insert 2 "R6"-size batteries (provided) in the correct directions.
3. Replace the cover.

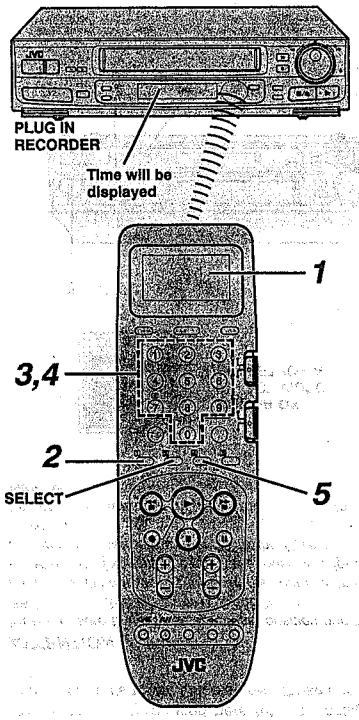


How To Use
The remote control can operate most of your video recorder's functions, as well as basic functions of TV sets of JVC and other brands. ☞ p. 37.
- Point the remote control toward the sensor window.
- The maximum operating distance of the remote control is about 8 m.

Setting The Clock

Since your video recorder bases all of its timer recording start and stop "decisions" on the time kept by its built-in clock, accurate setting of this clock is crucial for proper timer-recording results. Follow these instructions to set the remote control's LCD clock and transfer its contents to the recorder's clock.





LOAD BATTERIES

1 Check the LCD.
- The time display section (0:00) will be blinking.

START CLOCK SETTING

2 Press CLOCK.
- Blinking digits will prompt you to items that can be set.

INPUT THE TIME

3 Press the appropriate numeric keys.
- Example: For 21:05, press 2 1 0 5.

INPUT THE DAY/MONTH/YEAR

4 Press the appropriate numeric keys.
- Example: For 6th August 1995, press 0 6 0 8 1 9 9 5.
- After setting the year, the transfer-ready mark will appear and blink.

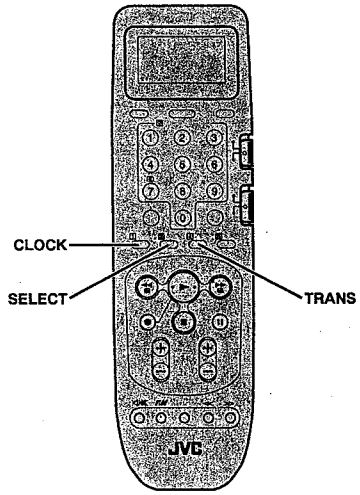
Transfer-ready mark

TO MAKE CORRECTIONS

Press SELECT button so that the item you want to change blinks. Re-input that item. Continue to step 5.

SETTING THE RECORDER'S CLOCK

5 Press TRANS with the remote control directed to the recorder's Remote Sensor window.
- The remote control's clock will start. At the same time, the set data will be transferred to the recorder.



TO RESET THE CLOCK

For British Summer Time change, reset the clock as follows:
1. Press CLOCK three times.
2. Press SELECT so that the item you want to change blinks. Re-input that item.
3. Press TRANS with the remote control directed to the recorder's remote sensor window.

AFTER A POWER CUT

Since your video recorder has a 3-minute backup memory, it will not be affected by short power cuts. If mains power is unavailable for over 3 minutes, however, the recorder's display will reset to 0:00. In such a case, simply transfer the remote control's time to the recorder.
1. Press CLOCK three times.
2. Press TRANS with the remote control directed to the recorder's remote sensor window.

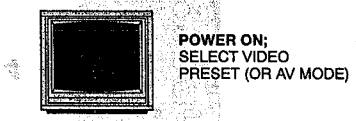
NOTES:
- *If the day and month data is invalid (such as 31st April), the month digits are cleared automatically and the day digits will blink. Input again.*
- *If the year digits are automatically cleared in step 4, it is possible that you have input 29th February for a non-leap year. Input again.*
- *When the batteries are exhausted, the LCD's characters become translucent and difficult to read. Replace both batteries and set the clock again.*

Tuning In Your Video Recorder To Local TV Stations

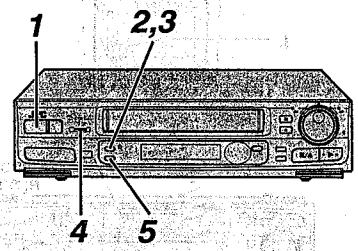
The procedure introduced here lets you assign receivable TV stations in your area to preset positions on your video recorder's tuner. Once stored, these can be accessed with the TV PROG. buttons.

ATTENTION

Please ensure that you select preset position number "1" for BBC1, "2" for BBC2, "3" for ITV, and "4" for CH4 since these are pre-set in your Video Plus+ remote control in this order.
In the display example shown, preset position 3 for ITV would be tuned to channel number 23 in the Crystal Palace area (London).
For channel numbers in your area, refer to the chart on page 39.



POWER ON;
SELECT VIDEO
PRESET (OR AV MODE)



ENGAGE THE TUNING MODE

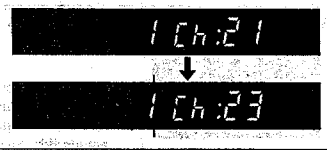
1 Press OPERATE to turn on the recorder.

2 Press CH SET until the display panel shows the following.

preset position — channel number

START TUNING

3 Press SEARCH.
- Automatic scanning will start at the lowest station channel number, and stop when a station is detected.
- If this is not the station you want to store, press SEARCH again.



SELECT A PRESET POSITION

4 Press TV PROG. to select the tuner preset position where you wish to store that TV station.

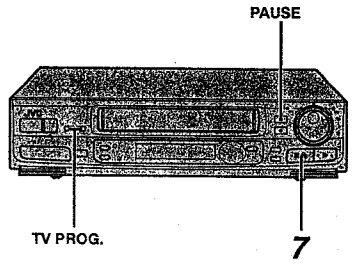
STORE THE STATION

5 Press STORE to store the station.

Colon will disappear.

- This message indicates that UHF channel 23 has been stored in the tuner's preset position 3.

(Continued on next page.)



CONTINUE

6 Repeat steps 3 through 5 for other TV stations.
- If the picture of the detected station is not satisfactory, try fine-tuning. See below.

CANCEL THE TUNING MODE

7 Press STOP.

To change preset stations, ☞ p. 38

NOTE:

- *If you want to return to a lower channel number after skipping it by mistake in Step 3, hold down SEARCH to start reverse channel search. Releasing the button stops the reverse search.*

To get a clearer picture — Fine-Tuning —

After step 6, you can perform Auto Fine-Tuning for all the stored stations at once.

1 Press PAUSE for more than 2 seconds.
- Auto Fine-Tuning will start.

- After completion of Auto Fine-Tuning for all the stored stations, the display panel will return to step 6.

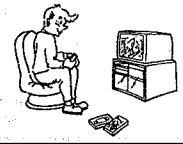
2 Continue to step 7.

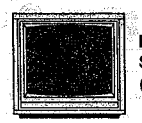
If you want to fine-tune a specified station, try fine-tuning manually.

1 Press TV PROG. (+ or –) to select the station you wish to fine-tune.
2 Press PAUSE briefly.
3 Press TV PROG. (+ or –) so that the picture becomes clearer.
4 Press PAUSE briefly again.
5 Continue to step 7.

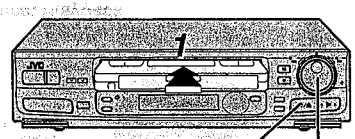
Basic Playback

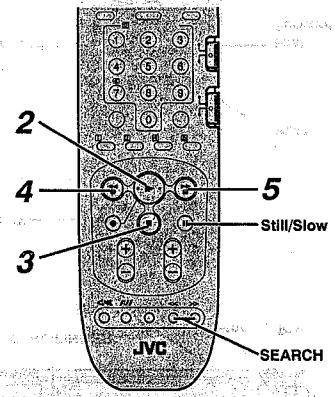
The easiest, most basic operation possible with your video recorder is tape playback. Already-recorded signals on a video tape are read by your video recorder and displayed on your TV just like a TV programme.





POWER ON;
SELECT VIDEO PRESET
(OR AV MODE)





NOTES:

- *The recorder automatically stops when still or slow motion playback continues for more than 5 minutes.*
- *If the still picture is unstable (vertical jitter) use the TV PROG. buttons to correct the picture.*
- *During search playback, some noise bars will appear.*
- *There is no audio during search, still, frame-by-frame, or slow motion playback.*
- *The recorder automatically rewinds when the end of the tape is reached.*

LOAD A CASSETTE

1 Insert a cassette.
- The recorder power will come on automatically and the counter will be reset to 0:00:00.
- If the safety tab on the cassette is removed, playback will start automatically.

TO START PLAYBACK

2 Press ► (Play).

TO STOP PLAYBACK

3 Press ■ (Stop).

TO REWIND OR FAST-FORWARD

4 To rewind the tape, press ◄◄ (Rewind) or turn the SHUTTLE ring to the left and release it.

5 To fast-forward the tape, press ►► (Fast Forward) or turn the SHUTTLE ring to the right and release it.

TO EJECT THE TAPE

6 Press ■/▲ (Stop/Eject) on the recorder.

Variable-Speed/High-Speed (Turbo) Search, Still Playback/Frame Advance/Slow Motion

During Playback:

1 Press either SEARCH button for variable-speed search.
- The more times the button is pressed, the faster the playback picture will move.
- To decrease speed, press the button for the opposite direction.

During Playback:

1 Press ►► (Fast Forward) for high-speed forward search, or ◄◄ (Rewind) for high-speed reverse search.
- For short searches, keep ►► (Fast Forward) or ◄◄ (Rewind) pressed for more than 2 seconds. When released, normal playback will continue.

2 Press ❚❚ (Still/Slow) to view a still picture.
- Press again to advance the picture frame by frame.

3 Press ❚❚ (Still/Slow) for 2 seconds for slow motion.
- Press again to stop the picture.

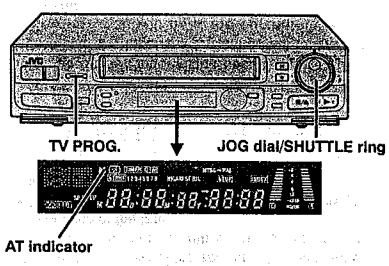
4 Press ► (Play) to resume normal playback.

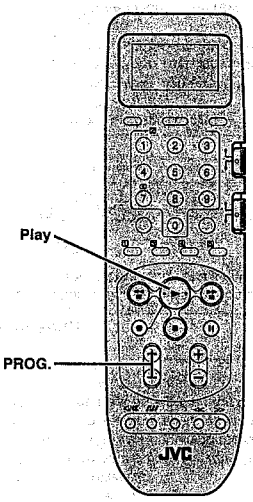
During Still:

1 For frame-by-frame playback in the forward or reverse direction, press SEARCH << or >> for the corresponding direction.

Playback

Take advantage of special functions possible with the recorder's controls or the remote control.





NOTES:

- *When playing back LP recordings in the search, still, or frame-by-frame playback mode, the picture will be distorted, and there will be a loss of colour.*
- *When a new tape is inserted, the recorder enters the automatic tracking mode automatically.*
- *To adjust tracking manually with the remote control, first press the AT button and then press TV PROG – or +. Press the button AT again to return to automatic tracking.*

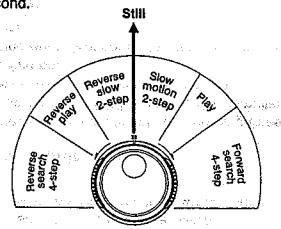
Shuttle Dial Control

You can view pictures in slow to fast motion, or frame-by-frame.

During Still or Playback...

1 Turn the SHUTTLE ring to the right for forward slow motion and search.
- Release the SHUTTLE ring for a still picture, or...
- For fast-forward with a visible picture, turn the SHUTTLE ring all the way to the right and release it within 1 second.

2 Turn the SHUTTLE ring to the left for reverse play and search.
- Release the SHUTTLE ring for a still picture, or...
- For rewind with a visible picture, turn the SHUTTLE ring all the way to the left and release it within 1 second.

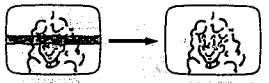


During Still or Playback...

1 Rotate the JOG dial clockwise or counterclockwise for JOG control. The tape moves frame-by-frame at the speed with which the dial is rotated.

Manual Tracking

Your video recorder is equipped with automatic tracking control; the AT indicator lights or blinks when automatic tracking is on. During playback, tracking can be adjusted manually using the TV PROG. buttons.



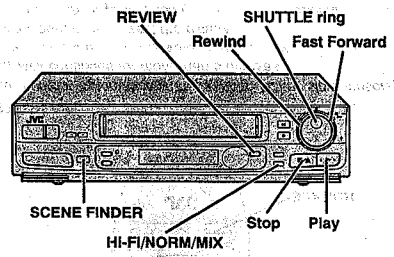
During Playback:

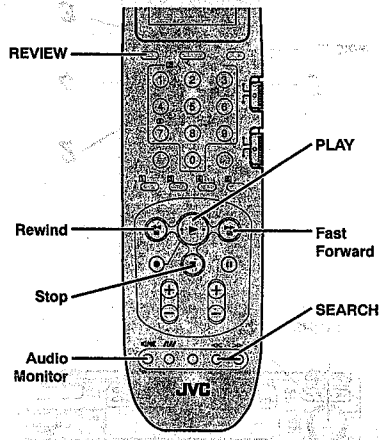
1 Press recorder's TV PROG. (– and +) simultaneously for manual override.
- The AT indicator will go out.

2 Press TV PROG. (– or +) to adjust tracking.

3 Press recorder's TV PROG. (– and +) simultaneously to return to automatic tracking.

Playback (cont'd)





Repeat Playback

Your video recorder can automatically play back the whole tape 20 times repeatedly.

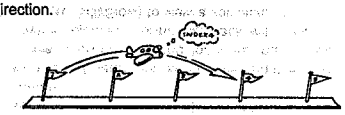
During Playback:

1 Press Play for more than 5 seconds, and release.
- The Play indicator (▷) on the display panel will blink slowly.
- The tape will be played 20 times automatically, and then stop.

2 To stop playback at any time, press ■ (Stop).

Index Search

Your recorder automatically marks index codes at the beginning of each recording. This function gives you quick access to any one of 9 index codes in either direction.

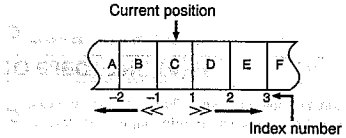


During Stop:

1 Press SEARCH ≪ or ≫. "INDEX –1" or "INDEX 1" will be displayed on the display panel and search will begin in the corresponding direction.

2 If you wish to access index codes 2 through 9, press SEARCH repeatedly until the correct index number is displayed.

Ex.: To locate the beginning of B from the current position, press SEARCH ≪ twice.
To locate the beginning of D from the current position, press SEARCH ≫ once.



- When the specified index code is found, playback will start automatically.

ReView Function

Simply by pressing a single button, the recorder power comes on, rewinds, and begins playback of the last recording. This makes it easier to "review" the programme you have timer-recorded.

When the recorder power is off:

1 Press REVIEW.
- After the recorder power comes on, the tape will be rewound to the beginning of the last recording (where the index code is placed) and playback will start automatically.
- To play back a recording located 2 index codes away, press REVIEW twice. You can access any one of up to 9 index codes.
- ReView is not possible while the recorder is in the Timer mode.

Open Search Function

Your video recorder lets you view the picture being rewound or fast-forwarded so you can easily check how far the tape has gone.

During Rewind:

1 Keep the remote's Rewind button pressed, or turn the SHUTTLE ring fully to the left.
- The rewinding tape's picture will be visible.

2 Release the Rewind button or SHUTTLE ring to resume normal rewinding.

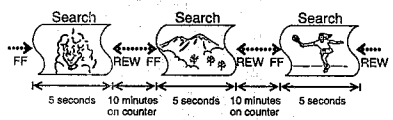
During Fast Forward:

1 Keep the remote's Fast Forward button pressed, or turn the SHUTTLE ring fully to the right.
- The fast forwarding tape's picture will be visible.

2 Release the Fast Forward button or SHUTTLE ring to resume normal fast forwarding.

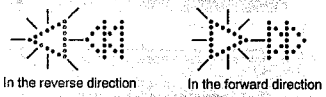
Scene Finder

This function helps you check contents of unlabeled recorded tapes at the touch of a single button.



Anytime except during Record:

1 Press SCENE FINDER.
- The recorder starts high-speed forward search for 5 seconds and then fast-forwards 10 minutes on counter. This will be repeated until the end of the tape is reached.
- To start Scene Finder in the reverse direction, press SCENE FINDER and then turn the SHUTTLE ring to the left (or press the remote's Rewind button) within 2 seconds. It will be repeated until the beginning of the tape.
- During Scene Finder, the display panel shows the following.



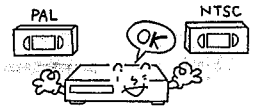
In the reverse direction In the forward direction

- During Scene Finder High-Speed Search, you can also hear the tape sound. During Fast Forward (or Rewind), you will hear the current TV sound instead.
- Scene Finder does not function during Index Search.

2 Press STOP to stop Scene Finder.

NTSC Playback

Your video recorder is equipped with NTSC circuitry that can play back NTSC tapes.



1 Insert a cassette recorded in NTSC.

2 Press Play.

When playing back NTSC tapes:
- "NTSC → PAL" will appear on the display panel.
- Some TVs shrink the picture vertically and place black bars at the top and bottom of the screen. This is not a malfunction on the part of either the video recorder or the TV.
- The picture may roll up or down. This can be corrected using the V-HOLD control found on some TVs. (This cannot be corrected if the TV does not have a V-HOLD control.)
- The counter reading will be incorrect.
- During search, still, or frame-by-frame playback, the picture will be distorted, and there will be a loss of colour.

Soundtrack Selection

Your video recorder is capable of recording three soundtracks (HIFI L, HIFI R and NORM) simultaneously, and playing back the selected soundtrack.

During Playback:
- Pressing Audio Monitor on the remote control changes the track:

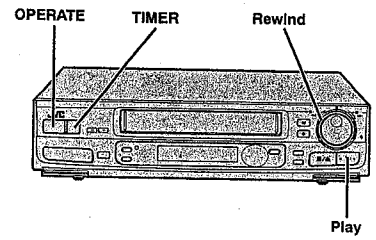
Track: (on display panel)	Use:
L + R	for Hi-Fi stereo tapes.
L	for main audio of bilingual tapes.
R	for sub audio of bilingual tapes.

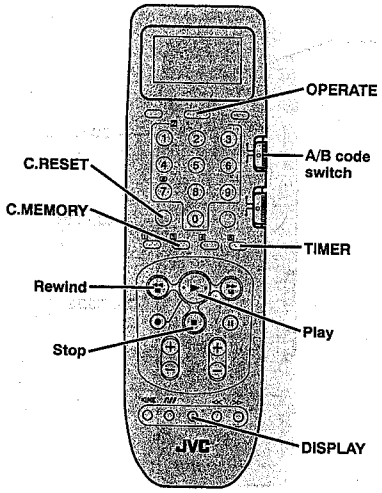
- Pressing Hi-Fi/NORM/MIX on the recorder changes the mode:

Mode:	Track: (on display panel)	Use:
HIFI	L and/or R	for Hi-Fi stereo tapes.
NORM	NORM	for audio-dubbed tapes.
MIX	NORM + L and/or R	for audio-dubbed tapes.

NOTES:
- *Normally use the L + R position. Then Hi-Fi stereo tapes are played back in stereo, and tapes with normal audio only are played back automatically in the NORM mode.*
- *Bilingual programmes are not transmitted in the U.K. at present.*

Playback (cont'd)





Next Function Memory

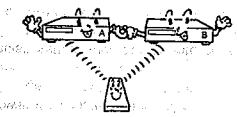
Your recorder can memorise what to do after rewind.
During Stop:
For automatic start of playback after the tape is rewound:
1 Press ◄◄ (Rewind).
2 Press ► (Play) within 2 seconds.
For automatic power off after the tape is rewound:
1 Press ◄◄ (Rewind).
2 Press OPERATE within 2 seconds.
For automatic timer standby after the tape is rewound:
1 Press ◄◄ (Rewind).
2 Press TIMER within 2 seconds.
■ If you want the "next function" to automatically start when the counter reads "0:00:00" (instead of at the beginning of the tape), press C. MEMORY so that the "M" mark appears before pressing ◄◄ (Rewind).

Counter Memory

Returns to the counter reading of "0:00:00" to conveniently find a specific place on the tape automatically.
During Playback:
1 Press DISPLAY until a counter reading appears on the display pannel.
2 Press C. RESET at a point you wish to locate later.
■ The counter will read "0: 00: 00".
3 Press C. MEMORY.
■ "M" will appear in front of the counter digits.
4 When you wish to return to that point, press ■ (Stop) and then press ◄◄ (Rewind).
■ The tape will rewind and stop at about "0: 00: 00" automatically.
5 To cancel the Counter Memory mode, press C. MEMORY again.

Remote A/B Code Switching

The remote control is capable of controlling two JVC video recorders independently; one set to respond to your remote control's A code control signals and another set to respond to B code control signals. The remote control is preset to send A code signals because your video recorder is initially set to respond to A code signals. You can easily modify your video recorder to respond to B code signals.

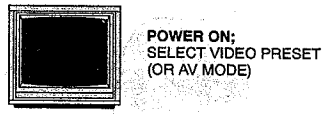


1 Unplug the recorder's power cord from the AC outlet.
2 Set the A/B code switch to B.
3 Plug the power cord back into the AC outlet. Do not use other remote controls at this stage.
4 Turn the recorder power on using the remote control's OPERATE button. The recorder will now only respond to B code signals.

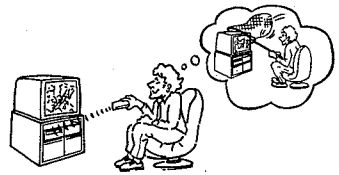
NOTE:
■ Some TV sets may malfunction in response to the B mode. If this happens switch back to the A mode.

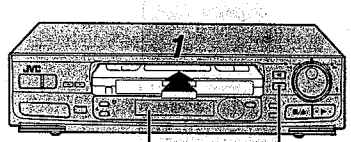
Basic Recording

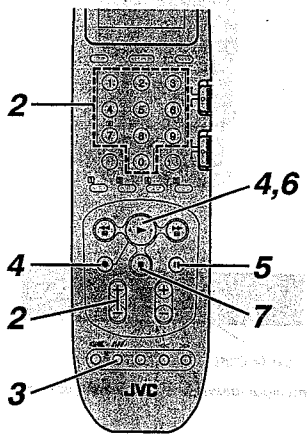
TV signals being received by the recorder's built-in tuner can be recorded onto a video tape.
You can "capture" a TV programme using your video recorder.



POWER ON;
SELECT VIDEO PRESET
(OR AV MODE)







LOAD A CASSETTE

1 Insert a cassette with the safety tab in place and the counter will be reset to 0:00:00.
■ The recorder power will come on automatically.

CHOOSE A PROGRAMME

2 Press TV PROG. or the numeric keys to select the preset you wish to record.

SELECT THE TAPE SPEED

3 Press /// (SP/LP).
■ Check the SP/LP indicator on the recorder to confirm the selected tape speed.

TO START RECORDING

4 Press ● (Record) and ► (Play) simultaneously.

TO PAUSE RECORDING

5 Press ❚❚ (Pause).
6 Press ► (Play) to resume recording.

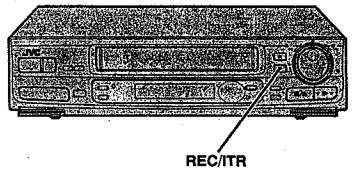
TO STOP RECORDING

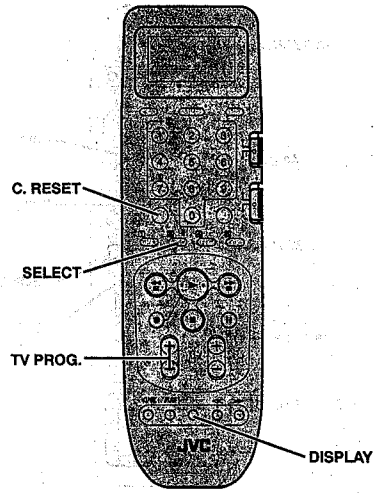
7 Press ■ (Stop).

NOTES:

- *To start recording with the recorder's REC/ITR button, press it once on its own. Pressing REC/ITR more than once activates the Instant Recording (ITR) function.* ☞ *p. 26.*
- *After pause, when recording is resumed, a few frames recorded before the pause may be overlapped by the new recording. This is meant to reduce picture distortion and is not a malfunction.*
- *The recorder automatically stops when record-pause continues for more than 5 minutes.*
- *If the Record button does not work, check to see if the cassette's safety tab has been removed.*
- *The preset cannot be changed while recording is in progress. To change the preset, engage the record-pause mode, then change the preset.*
- *The recorder automatically rewinds when the end of the tape is reached during recording.*
- *The recorder automatically marks index codes at the beginning of each recording. For information on the Index Search function,* ☞ *p. 22.*

Recording





Instant Recording (ITR)

You can start a recording and then set the recorder to shut off automatically after a set duration.

During Record:

1. Press REC/ITR. "ITR" and "0:30" indications appear, advising that power will switch off after 30 minutes.
2. Press REC/ITR again to delay the off-time by 30-minute increments (up to 4 hours).
   - For more precise setting, use the remote control's SELECT and TV PROG. buttons to set the exact time required (possible up to 8 hours and 59 minutes).

To Watch Another Programme While Recording

During Record:

1. Use the preset controls on the TV to select the other station you wish to view.
   - The programme selected with the TV's preset controls will appear on the TV screen while the one selected with the video recorder's TV PROG. buttons will be recorded on the tape.

Elapsed Recording Time Indication

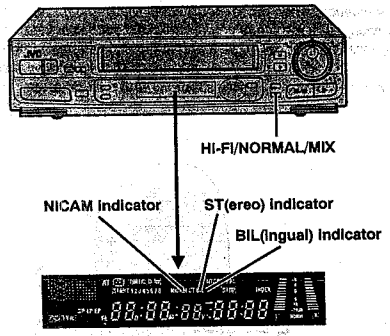
When you need to know the exact time of a recording.

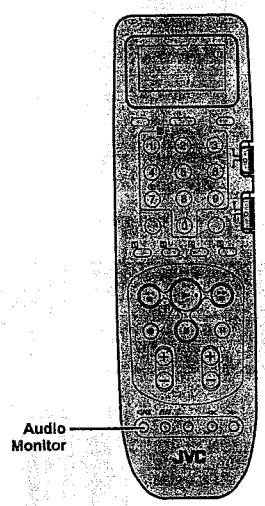
1. Press DISPLAY until a counter reading appears on the display panel.
2. Press C.RESET before starting recording or playback.
   - The counter will be reset to "0:00:00" and show the exact elapsed time as the tape runs.

Display Button

When you wish to check the clock time, date, or counter reading.

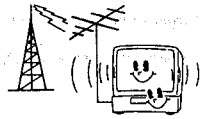
1. Press DISPLAY to display the current clock time.
2. Press DISPLAY again to display the current date.
3. Press DISPLAY again to display the counter reading.





Receiving NICAM Stereo And Bilingual Programmes

Your recorder is equipped with a Digital stereo sound decoder for reception of NICAM stereo and bilingual broadcasts.



- When a stereo programme is being received, the NICAM and ST(ereo) indicators light.
- When a bilingual programme is being received, the NICAM and BIL(ingual) indicators light.
- When a monoaural programme is being received, the NICAM indicator lights.

To Record NICAM Stereo And Bilingual Programmes

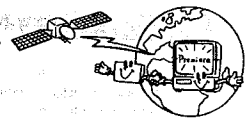
- The NICAM audio programme will be recorded on the Hi-Fi audio track, and the Standard audio programme on the normal audio track.
- To listen to a stereo programme, select "HIFI L+R" by pressing Audio Monitor.
- To listen to a bilingual programme, select either "HIFI L" or "HIFI R" as required.
- To listen to the Standard audio programme, select "NORM" using the Hi-FI/NORMAL/MIX button on the recorder.

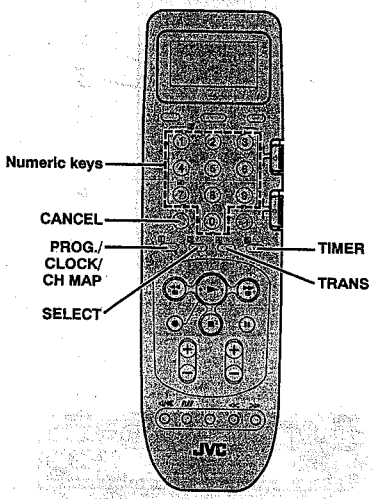
NOTE:

- *Bilingual programmes are not transmitted in the U.K. at present.*

Information On Video Plus+

With Video Plus+, timer programming is greatly simplified because each TV programme has a corresponding code number which your recorder and remote control are able to recognise. The following information will help you maximise the benefits of this feature, especially if your AV system has cable or satellite capabilities.





Video Plus+ Operation Buttons

PROG./CLOCK/CH MAP button
- If the clock has not been set, press once to set the clock.
- If the clock has already been set, each press rotates the display: Video Plus+ Timer Program → LCD Timer Program → Clock Set mode → Channel Map mode

Numeric keys
- Press to enter a PlusCode number.

SELECT button
- After entering a PlusCode, press to check or correct the entered data.
- While the remote control is in the Channel Map mode, press to set the GUIDE PROG. and TV PROG. numbers.
- While the remote control is in the Channel Map mode, press to check the entered channel numbers.

TRANS button
- Press to transfer the data to the recorder.

TIMER button
- Press to engage the recorder's timer mode

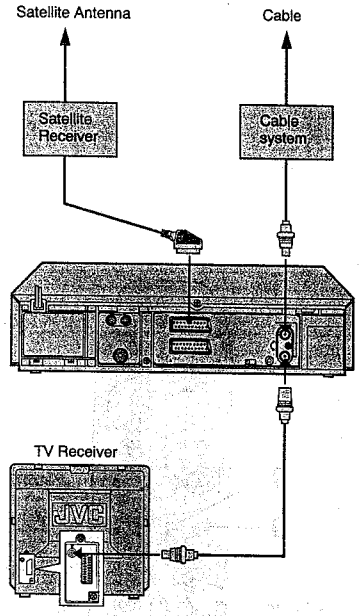
CANCEL button
- If you have entered the wrong PlusCode number, press to backspace.
- While the remote control is in the Channel Map mode, press to cancel the entered channel numbers.

NOTES:
- **CH MAP:** *To use Video Plus+, it is necessary to let the remote control know both the preset position numbers for local TV stations you have set on your video recorder, and the GUIDE PROG. numbers for those TV stations. The "list" of presets and GUIDE PROG. numbers created in the remote control's internal memory is called the "Channel Map" (CH MAP).*
- **GUIDE PROG.:** *The assigned TV station numbers, according to broadcast area, for Video Plus+ timer-recording. The GUIDE PROG. numbers 1 through 4 are for BBC1, BBC2, ITV and CH4 respectively. For other TV stations, refer to your TV directory.*

TIMER PROGRAMMES ARE ALSO POSSIBLE FROM A SATELLITE RECEIVER AND/OR A CABLE SYSTEM.

PLEASE ENTER THE PRESET POSITIONS YOU HAVE CHOSEN FOR THESE SYSTEMS IN YOUR VIDEOPLUS REMOTE CONTROL.

IN THE EXAMPLE SHOWN, THE SATELLITE RECEIVER IS SHOWN CONNECTED TO THE "AU" (SCART) CONNECTION AND THE CABLE SYSTEM CONNECTED VIA THE AERIAL SOCKET AND TUNED TO PRESET POSITION 5 ON YOUR TV.



NOTES:
- *After selecting the programme you wish to record from your cable system or satellite receiver, set the system's timer — if your cable or satellite receiver does not have a timer leave it switched on.*
- *When the remote control's batteries are replaced, the time or Guide Channel numbers you have set may be erased. If this happens, reset them again.*

To Record Satellite And Cable System Programmes

If using a satellite receiver, follow steps ① – ⑥.
If using a cable system, follow steps ❶ – ❼.
If using both, follow all steps.

PREPARATION

①❶ Connect a cable system or a satellite receiver as illustrated.
❷ Set the recorder so that cable presets can be viewed on preset position "5". (☞ p. 18.)
②❸ Press CH MAP until the LCD shows the Channel Map mode.

("SA" = Satellite)

③ Use the numeric keys to enter "00" for TV PROG. number.
- "AU" will appear instead of a preset number.

④❹ Press SELECT.

("CA" = Cable system)

❺ Use the numeric keys to enter "05" for TV PROG. number.

⑤❻ Press SELECT.

⑥❼ Press CH MAP.
- The LCD will return to the clock display.

OPERATION

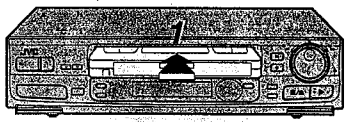
1 Turn on the cable system or satellite receiver, and select the preset you wish to record.
2 Enter the PlusCode number in the same way as shown in steps 1 – 8 of "Video Plus+ Timer-Recording" on p. 30 – 31.

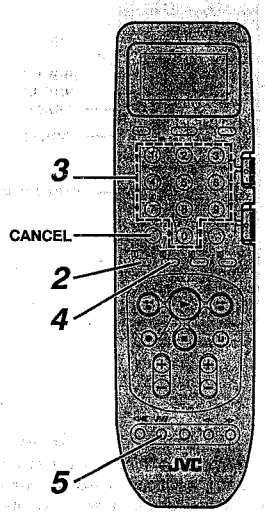
Video Plus+ Timer-Recording

Your video recorder provides a variety of timer programming methods, including Video Plus+. The built-in Video Plus+ programming system greatly simplifies timer programming because you won't have to enter all the data that is usually necessary (such as date, start and stop time, and channel). Simply key-in the PlusCode number for the TV programme you wish to record (listed in most TV directories) and then transfer it to the recorder. Another timer programming method available is the Remote Control's LCD Record Timer (☞ p. 32). TIMER PROGRAMMING IS NOT POSSIBLE UNLESS THE CLOCK HAS BEEN SET. (☞ p. 16)

IMPORTANT

In "Tuning In Your Video Recorder To Local TV Station" (☞ p. 18), make sure you have selected preset positions 1 through 4 for BBC1, BBC2, ITV and CH4 respectively.





LOAD A CASSETTE

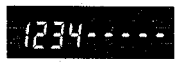
1 Insert a cassette with the safety tab in place.
- The recorder power will come on automatically.

ACTIVATE THE VIDEO PLUS+ MODE

2 Press PROG.

INPUT THE TV PROGRAMME'S CODE NUMBER

3 Press the appropriate numeric keys to enter the PlusCode number for the TV programme you wish to record.



- For PlusCode numbers, refer to your newspaper or TV directory.
- The length (number of digits) of the code number differs by programme.
- If you made a mistake, press CANCEL to backspace and re-enter the correct PlusCode number.

CHECK IF DATA IS CORRECT

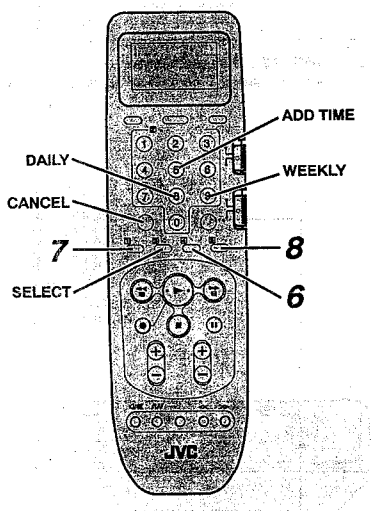
4 Press SELECT.
- The LCD will show the data for the PlusCode number you just entered.
- If the data is not correct, press PROG twice and re-enter the correct PlusCode number.
- If the entered PlusCode number is not proper, "Error" appears on the LCD. Check the PlusCode number again and re-enter it.
- If a PDC adapter is connected the recorder and you wish to take advantage of PDC recording (☞ p. 34), press ⑦ (the numeric key "7") so that "⑦" appears on the LCD.

Example

SELECT THE TAPE SPEED

5 Press /// (SP/LP).

(Continued on next page.)



TRANSFER TO THE RECORDER

6 Press TRANS with the remote control directed toward the recorder's Remote Sensor window.
- Transfered program will appear on the display panel, telling you that the data has been successfully transferred to the recorder's memory.

END PROGRAMMING

7 Press the appropriate numeric keys to enter the PlusCode number for the TV programme you wish to record.

- The LCD returns to the clock display and the entered data will be automatically cleared.
- If you need to set another program, repeat steps 2 – 7.

SET TO TIMER MODE

8 Press TIMER.
- The recorder will enter the timer mode and power will go off.

To Delay The Stop Time

After you press SELECT in step 4, press the ADD TIME button. Each time the ADD TIME button is pressed, the Stop time is delayed by 5 minutes (5 minutes of recording time is added). You can easily compensate for anticipated programme schedule delays this way.

To Timer-Record Weekly Serials

This function lets you set the recorder to timer-record at the same time on the same day every week.
- After pressing SELECT in step 4, press WEEKLY (the numeric key "9").

To Timer-Record Daily Serials

This function lets you set the recorder to timer-record at the same time Monday through Friday.
- After pressing SELECT in step 4, press DAILY (the numeric key "8").

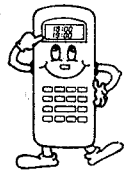
TO DISENGAGE THE TIMER

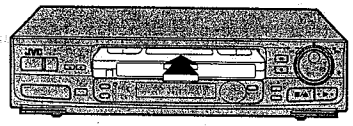
For safety, your recorder disables all other functions while in the timer mode.
- To use your recorder, first disengage the timer mode by pressing TIMER again. Now all functions will be operable.
- To re-engage the timer, press TIMER.

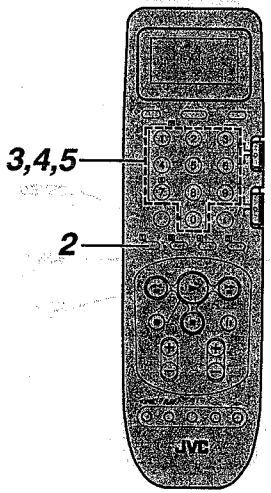
To timer-record CATV or Satellite TV programmes, ☞ p. 29
To cancel a program from the recorder's memory ☞ p. 34
Any questions? ☞ p. 28 – 29, 35

Remote Control's LCD Record Timer

The remote control's LCD programming method introduced here lets you input all necessary settings manually. It's helpful if the PlusCode for the TV programme you want isn't readily available. TIMER PROGRAMMING IS NOT POSSIBLE UNLESS THE CLOCK HAS BEEN SET.





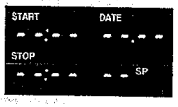


LOAD A CASSETTE

1 Insert a cassette with the safety tab in place.
- The recorder power will come on automatically.

ACCESS THE LCD TIMER PROGRAM

2 Press PROG. twice.



INPUT THE DATE

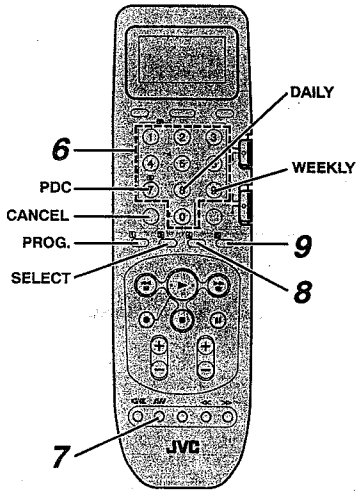
3 Press the appropriate numeric keys.
- Example: For 26th August, press 2 6 0 8.

INPUT THE START TIME

4 Press the appropriate numeric keys.
- Example: For 8:00, press 0 8 0 0.

INPUT THE STOP TIME

5 Press the appropriate numeric keys.
- Example: For 10:00, press 1 0 0 0.



TO MAKE CORRECTIONS

- During steps 3 and 6, press CANCEL to backspace and input new data.
- After setting the channel in step 6, press SELECT to make the item you want to change blink, and input new data.
- Pressing PROG. clears the programmed data.

NOTE:

- *If you have a satellite tuner connected to the recorder's AV2 IN socket and wish to timer-record satellite programmes, make sure to input "0" for the preset number in step 6 to make "AU" appear on the LCD. After you transfer the data to the recorder, "AU 2" will be displayed instead of a preset number on the recorder's display panel.*

INPUT THE PRESET NUMBER

6 Press the appropriate numeric keys.
- Example: Press "1" for BBC 1, if BBC 1 has been stored in preset position 1 during tuning.
- After the preset has been entered, the transfer-ready mark will appear and blink.
- If a PDC adapter is connected to the recorder and you wish to take advantage of PDC recording (☞ p.34), press ⊡ (the numeric key "7") so that "⊡" appears on the LCD.

Transfer-ready mark

SELECT THE TAPE SPEED

7 Press /// (SP/LP) to select the tape speed.

TRANSFER THE DATA TO THE RECORDER

8 Press TRANS with the remote control directed to the recorder's Remote Sensor window.
- You will see the program number on the display panel, telling you that the data has been successfully transferred to the recorder's memory.

SET TO TIMER MODE

9 Press TIMER.
- The recorder will enter the timer mode and power will go off.
- If you wish to disengage the timer mode, press TIMER again.
- Press PROG. to cancel LCD Timer Program mode.

Variations in Step 3 (Weekly Program)

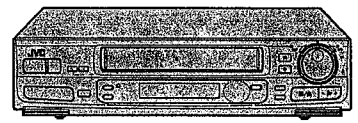
This function lets you set the recorder to timer-record at the same time on the same day every week. Use it to record weekly serials.
- First press numeric key "9" (WEEKLY) and then enter the date.

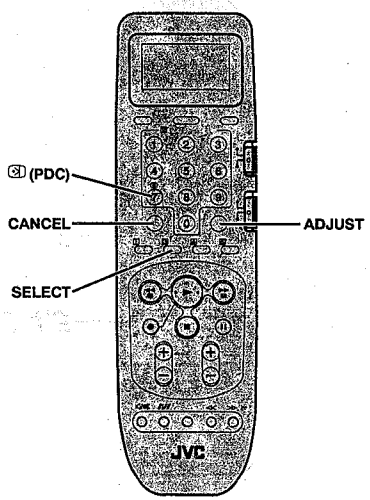
Variations in Step 3 (Daily Program)

This function lets you set the recorder to timer-record at the same time Monday through Friday. Use it to record daily serials.
- To record a daily serial starting on the day of setting, press numeric key "8" (DAILY) and then press SELECT until the display changes to time input mode.
- To record a daily serial starting on a certain day, press numeric key "8" (DAILY) and then enter the date.

To cancel a program from the recorder's memory, ☞ p. 34.
Any questions? ☞ p. 35.

Other Timer-Recording Information





Some Facts On Timer Operation

- When timer-recording is successfully completed, the recorder's power is automatically switched off.
- Since the timer starts and stops recording based on the time being kept by your video recorder's built-in clock, the clock's time must be accurate for correct timer-recording results.

NOTES (PDC Recording):

- *When you manually enter programmes (i.e. not using Video Plus+), set the start time (PDC time) exactly as advertised in the TV listing. A different time than advertised will result in no recording.*
- *PDC recording is not possible via external input.*

To Check, Cancel And Replace Programs

Since executed programs are automatically cleared from memory (except those for daily and weekly serials), cases where the entire 8-event memory is full should be rare. If this should happen, check the preset programs and cancel one or more to make room for the new program(s) you wish to input.

TO CHECK PROGRAMS

1 Press ADJUST until the program settings are displayed.
- Program 1 is displayed with the number blinking.

2 Press SELECT to review the program contents in succession.

3 To check another program, press ADJUST.

TO REPLACE THE PROGRAM

4 Press SELECT to make the item you want to change blink and press TV PROG. to replace the data.

Or...

TO CANCEL THE PROGRAM

4 Press CANCEL to erase the program from memory.
- You can press CANCEL at any stage while the program is open. The erased program number will be displayed with the number blinking.
- To erase another program, press ADJUST when a blinking program number is displayed.

5 When finished, press DISPLAY.

NOTE:

- *If you wish to timer-record satellite programmes with a satellite tuner connected to the recorder's AV1 IN/OUT connector, be sure to select "AU 1" for the channel after transferring the programmed data to the recorder: Simply follow step 1 and 2 as shown above so that the recorder's channel display blinks and then press TV PROG. to select "AU 1".*

PDC Recording

Now available from some TV stations, PDC (Program Delivery Control) is a service designed to assure safe, accurate timer-recording. With this system, special code signals are transmitted together with the audio/video signals. These code signals control your video recorder and have precedence over advertised times you preset in the timer. This means that your recorder will start and stop recording when the preset TV programmes actually start and end — even if the broadcast time of a preset TV programme is changed.

TO USE PDC SERVICE

- Connect JVC's optionally available PDC adapter to the PDC/VPS connector of the recorder.
- During Video Plus+ or LCD timer programming, press the (PDC) button (the numeric key "7") before transferring the programme data to the recorder.
- If you wish to cancel "PDC", press the (PDC) button (the numeric key "7") again. Pressing the (PDC) button alternates the setting.

Error Indications

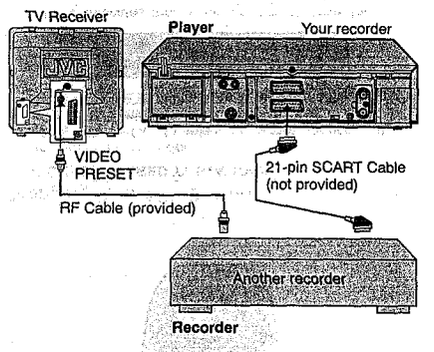
The following error indications may appear on the recorder when you press the TIMER button to engage the timer mode. Here's why, and what you should do.

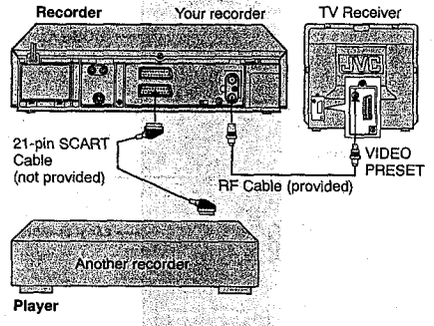
INDICATION	WHY	WHAT TO DO
"TIMER" and "📼" on the display panel continue blinking.	There is no cassette in the recorder.	Insert a cassette.
The cassette is automatically ejected. "TIMER" and "📼" continue blinking.	The inserted cassette has its safety tab removed.	Insert a cassette with its safety tab intact. Or cover the safety tab hole of the cassette with adhesive tape and re-insert it. ☞ p. 12.
"TIMER" blinks for 10 seconds and the timer mode is cancelled.	There are no preset programs in memory, or they have all been incorrectly preset.	Check the programmed data and re-program it as necessary. Press TIMER again.

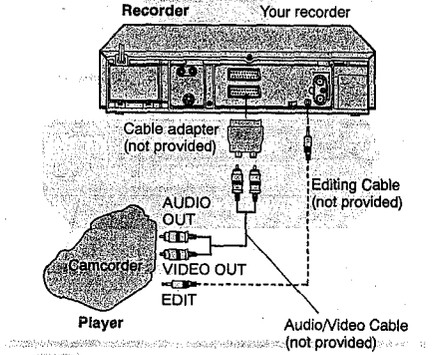
Other Indications

INDICATION	WHY
"TIMER" steady lit (with clock display).	The recorder is in the timer mode. This is the normal display you should see when you press the TIMER button.
"○" and "TIMER" steady lit.	Normal display while timer-recording is in progress.
The cassette is ejected, power is shut off and "TIMER" and "📼" are blinking.	This means that the end of the tape was reached while timer-recording was in progress. Therefore, the preset program may not be recorded in its entirety.
"0:00" is blinking.	This means the clock must be set. It's displayed when time-keeping is terminated due to a power failure or because the recorder's power plug was pulled from the AC outlet. To set the clock. ☞ p. 16. If power was interrupted, it's also likely that all preset timer programming data has been erased. Please check and re-program as necessary.
"-- -- -- -- --" is displayed for about 5 seconds when the TRANS button is pressed.	Data was not successfully transferred. The program may have been incorrectly preset, or the recorder's clock has not been set, or all the recorder's timer programs (1 – 8) are preset. Check the LCD program, and re-program as necessary. Transfer the correct data. Or cancel unnecessary programs, and transfer again.

Editing







Editing To/From Another Video Recorder

Your video recorder can be used as either the recording deck or the source player when editing tapes.

PREPARATION

1 Connect the player's AUDIO/VIDEO connector to the recorder's AUDIO/VIDEO connector.
- When using your recorder as the source player, connect the AV1 IN/OUT connector to the recording deck. When using your recorder as the recording deck, both AV1 IN/OUT and AV2 IN connectors can be used.

OPERATION

2 Set the recorder's input mode to AUX.
- With this recorder, press TV PROG. to select the connector being used; "AU 1" for AV1 IN/OUT connector, or "AU 2" for the AV2 IN connector.

3 Put the player in the Play mode.
4 Put the recorder in the Record mode.

NOTE:

Suitable leads can be obtained from your dealer.

Editing From A Camcorder

Tape-to-tape editing is also possible using a camcorder (equipped with playback facility) as the player and your deck as the recorder.

PREPARATION

1 Connect the camcorder's AUDIO/VIDEO OUT connector to the recorder's AUDIO/VIDEO connector.

OPERATION

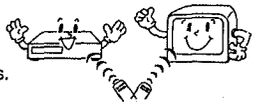
2 Press TV PROG. to select the connector being used; "AU 1" for the AV1 IN/OUT connector, or "AU 2" for the AV2 IN connector.
3 Put the camcorder in the Play mode.
4 Put the recorder in the Record mode.

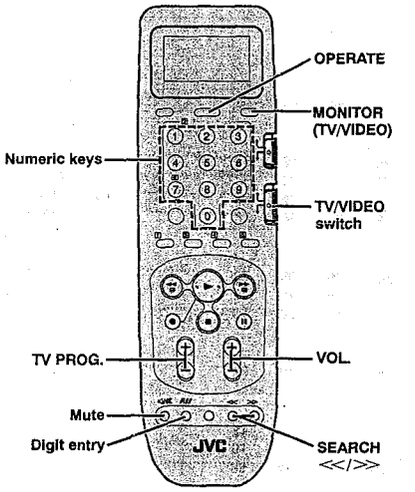
NOTE:

- *If the JVC camcorder is equipped with the Master Edit Control system, you can control the recorder using the camcorder's controls. See the camcorder's instruction manual for operating procedures.*

Using The Remote Control For TV Operation

The provided remote control can operate the basic functions of your television. In addition to JVC televisions, other manufacturers' televisions listed here can also be controlled by setting the remote control to the corresponding TV code. The remote control's default code is "1", which enables control of most JVC televisions.





TV Code Setting

Your remote control can operate the basic functions of your TV set. In addition to JVC televisions, other manufacturers' televisions listed on the left can also be controlled by setting the remote control to "TV". If your television is a JVC (Code 1), you don't have to set the TV code in step 2.

1 Set the TV/VIDEO switch to "TV".
2 While holding down the OPERATE button, press the numeric keys corresponding to the code number for your TV's brand.
- Press OPERATE to turn the TV power on.
- Press MONITOR (TV/VIDEO) to set the TV for TV or VIDEO (or AV) mode.
- Press TV PROG. to select the TV's preset.
- Press VOL. to adjust the TV's sound volume.
- Press Mute to mute the TV's sound.

2 To operate your recorder, set the TV/VIDEO switch back to "VIDEO".

NOTES:

- The MONITOR (TV/VIDEO) button does not function with televisions using Code 5.
- With some televisions, the OPERATE button functions only to turn the TV power off, and the MONITOR (TV/VIDEO) button functions only to switch the TV to the VIDEO (AV) mode.
- Whenever you replace batteries in the remote control, it is necessary to re-set the TV code if your television is not a JVC TV.

CODE	TV BRAND NAME
1	JVC
2	SONY
3	PANASONIC
4	PHILIPS
5	FERGUSON
6	HITACHI
7	TOSHIBA
0	MITSUBISHI

IMPORTANT

Although the provided remote control unit is compatible with JVC televisions, as well as many TV models manufactured by others, it is possible that the provided remote control will not work with your TV, or in some instances, will have limited function capability.

To Control Your Television With Additional Buttons

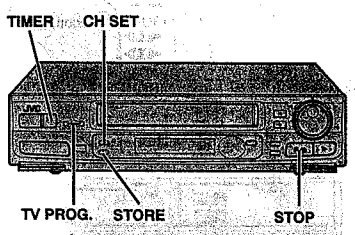
The numeric keys can also be used to select the TV's channel by setting the remote control to the TV mode.

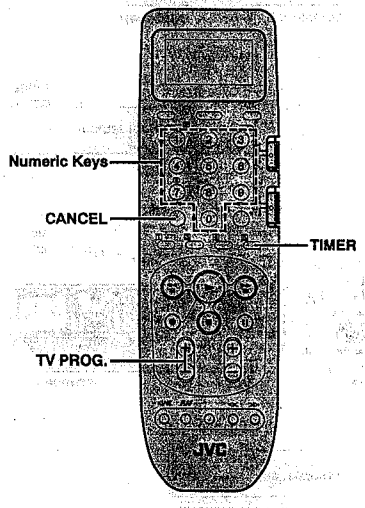
1 Set the TV/VIDEO switch to "TV".
2 Use the numeric keys and the Digit entry button or the SEARCH <</>> buttons to select the TV's channel.
- With televisions using Code 1, 2, 3, 4, or 5 the Digit entry button corresponds to the 1-digit/2-digit entry switching button (often labelled -/--) of your TV's remote control.
- With a JVC television using Code 1 the SEARCH << button corresponds to the 10 + button, and the SEARCH >> button, to the 20 + button of your TV's remote control.

NOTES:

- The way these buttons are used is determined by your TV. Use these buttons as instructed for your TV's remote control.

Station Presetting





Changing Preset TV Stations

TO CHECK STORED TV STATIONS

First turn on the recorder.

1 Press TV PROG. to select the preset position of the stored TV station whose number you want to know.

2 Press CH. SET until the display shows the following.

■ This indicates that preset position 1 stores the TV station on channel 26.

3 To check other preset positions, press TV PROG.

4 Press STOP to disengage the tuning mode.

TO DELETE STORED CHANNELS

First turn on the recorder.

1 Press TV PROG. to select the preset position you want to delete. (e.g. PR. 1)

2 Press CH SET until the display shows the following.

3 Press CANCEL.

Colon will appear.

■ This indicates that preset position 1 can no longer be chosen by TV PROG. buttons.

4 Press STOP to disengage the tuning mode.

TO STORE NEW TV STATIONS

First turn on the recorder.

1 Press CH SET until the display shows the following.

2 Press TIMER.

■ The channel number starts blinking.

3 Press numeric keys to input the channel number you want to store. (e.g. Ch 40.)

4 Press numeric keys to input the number of a vacant preset position (e.g. 6).

5 Press STORE.

Colon will disappear.

6 Press STOP to disengage the tuning mode.

TV Station Channel Number Guide

Only the main stations are listed. There are in addition many relay stations, and full lists are available from BBC and ITC.

	BBC1	BBC2	ITV	CH4
London & South-East				
Bluebell Hill	40	46	43	65
Crystal Palace	26	33	23	30
Dover	50	56	66	53
Heathfield	49	52	64	67
Oxford	57	63	60	53
South-West				
Beacon Hill	57	63	60	53
Caradon Hill	22	28	25	32
Huntshaw Cross	55	62	59	65
Redruth	51	44	41	47
Stockland Hill	33	26	23	29
Channel Islands				
Fremont Point	51	44	41	47
South				
Hannington	39	45	42	66
Midhurst	61	55	58	68
Rowridge	31	24	27	21
West				
Mendip	58	64	61	54
East				
Sandy Heath	31	27	24	21
Sudbury	51	44	41	47
Tacolneston	62	55	59	65
Midlands				
Ridge Hill	22	28	25	32
Sutton Coldfield	46	40	43	50
The Wrekin	26	33	23	29
Waltham	58	64	61	54
North				
Belmont	22	28	25	32
Emley Moor	44	51	47	41

	BBC1	BBC2	ITV	CH4
North-West				
Caldbeck	30	34	28	32
Winter Hill	55	62	59	65
North-East				
Bilsdale West Moor	33	26	29	23
Chatton	39	45	49	42
Pontop Pike	58	64	61	54
Scotland				
Angus	57	63	60	53
Black Hill	40	46	43	50
Sandale	22	—	—	—
Caldbeck	—	34	28	32
Creigkelly	31	27	24	21
Darvel	33	26	23	29
Durris	22	28	25	32
Eitshal	33	26	23	29
Keelylang Hill	40	46	43	50
Knock More	33	26	23	29
Rosemarkie	39	45	49	42
Rumster Forest	31	27	24	21
Selkirk	55	62	59	65
Wales				
Blaenplwyf	31	27	24	21
Carmel	57	63	60	53
Llanddona	57	63	60	53
Moel-y-Parc	52	45	49	42
Presely	46	40	43	50
Wenvoe	44	51	41	47
Northern Ireland				
Brougher Mountain	22	28	25	32
Divis	31	27	24	21
Limavady	55	62	59	65

Glossary

The following glossary is for your convenience in helping you better understand your VCR and its operation.

AV: Short for Audio/Video. Often refers to separate audio (sound) and video (picture) signals which, when combined, make up a program.

AV Connection: Type of VCR-to-TV connection in which the VCR's AUDIO OUT and VIDEO OUT terminals are connected to the TV's AV IN terminals. Audio and video signals are sent separately and directly to the TV without having to modulate them into RF signals.

Cassette Adapter: Provided with most Compact VHS camcorders, and also available optionally, it allows VHS-C cassettes to be played (and recorded) on VHS VCRs just like full-size VHS cassettes.

CH MAP: To use Video Plus+, it is necessary to let the remote control know both the preset position numbers for local TV stations you have set on your video recorder, and the GUIDE PROG. numbers for those TV stations. The "list" of presets and GUIDE PROG. numbers created in the remote control's internal memory is called the "Channel Map" (CH MAP).

Editing: Refers to dubbing or tape-to-tape editing (in which the contents of a tape in one video unit are copied to another tape in a second video unit), and to creative editing (in which video programming is actually modified to create something different from the original).

FDP: Short for Fluorescent Display Panel, which is the type of display panel used on this VCR.

GUIDE PROG.: The assigned TV station numbers, according to broadcast area, for Video Plus+ timer-recording. The GUIDE PROG. numbers 1 through 4 are for BBC1, BBC2, ITV and CH4 respectively. For other TV stations, refer to your TV directory.

Head: An electronic component which "writes" or "reads" video and audio signals on the tape.

Head Drum: A drum-shaped cylindrical assembly on which the video heads are located. It rotates at high speed, allowing the heads to "write" and "read" diagonal signal tracks on the video tape.

HI-FI VHS Stereo: High quality stereo sound recording/playback system developed by JVC. Uses rotary FM-audio heads which scan the tape helically at high speed.

HQ (High Quality): An enhancement feature in the VCR circuitry which provides greater picture detail.

ITR: Short for Instant Timer Recording. While the VCR is recording, pressing the REC/ITR button allows you to set the VCR to automatically stop recording (and turn off) after a certain amount of time.

LCD: Short for Liquid Crystal Display.

Mode: The status of the VCR (the operating feature being used) at any given time. (e.g. The tape is being rewound = the VCR is in the Rewind mode.)

NICAM (Near Instantaneous Companded Audio Multiplex): System developed by the BBC and adopted in the U.K. and several other countries for stereo TV sound broadcasting.

Noise: Video noise; various types of picture distortion including pulsing, streaking, and "snow". Some types are unavoidable, such as during high-speed search, while others are the result of weak TV signals or clogged video heads.

NTSC (National Television Standards Committee): The television broadcasting system used in the U.S., Japan, and other nations primarily in the Americas.

PAL (Phase Alternate Line): The colour television broadcasting system adopted in the U.K., much of Western Europe, and many other regions.

PDC (Program Delivery Control): A service designed to assure safe, accurate timer-recording by automatically compensating for changes in the broadcast schedule (such as delays and late-running programmes).

Preset Position: The "channel" numbers which are shown on the display of your video recorder, and used when choosing a station to record or timer-record. They are set during "Tuning In Your Video Recorder To Local TV Stations" procedure.

Realtime Counter: The VCR's tape counter shows tape time precisely in hours, minutes and seconds (unlike simple sequential counters). The counter resets automatically when a cassette is inserted.

RF Cable: Black insulated round cable used to connect the VCR to the TV.

RF Connection: Type of VCR-to-TV connection in which the VCR's RF (Radio Frequency) OUT terminal is connected to the TV's ANTENNA terminal. The VCR essentially "broadcasts" the program to your TV on channel 36.

Scart: A 21-pin connector used to send/receive video and audio signals between video and audio products. Also known as a Peritel connector or a Euroconnector.

Special Effects: Playback modes other than normal-speed forward playback; includes still playback (stop motion), slow motion, and high-speed visual search.

Super VHS: A version of the VHS format which was developed to provide pictures with over 400 lines of horizontal resolution. This VCR can handle standard VHS signals only, and cannot record or play back Super VHS signals.

Tape Speeds: This determines how fast the tape travels during a recording.

SP (Standard Play):
Fast tape speed. Provides recording time of about 3 hrs. per E-180 cassette, and 4 hrs. per E-240 cassette. Most prerecorded software is recorded in SP.

LP (Long Play):
Slow tape speed. Provides recording time of about 6 hrs. per E-180 cassette, and 8 hrs. per E-240 cassette. Useful for multiple-program recording on a single cassette.

Timer-Recording: Using the VCR's built-in clock/timer for automatic, unassisted start and stop of recording.

Tracking: The video head's ability to accurately "read" recorded signals (tracks) without deviating. When tracking deviation occurs, it appears on the screen as vertical jitter and grainy streaks. The Digital Tracking function on this VCR is an extremely accurate automatic tracking system which greatly reduces the possibility of deviations.

TV PROG.: Refers to a "preset position" or the control used to select a preset position. When you set the remote control's channel numbers, the TV PROG. number for any station should be identical to the preset position number on your recorder.

UHF (Ultra High Frequency): Band of frequencies lying between 300 and 3,000 MHz. U.K. colour television broadcasts use the UHF band.

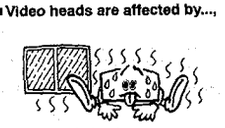
Video Plus+: A simplified system that allows timer-recording of a TV programme by simply keying-in the code number for it.

VCR: Short for Video Cassette Recorder.

VHS: The video format of this VCR, and the video format most widely used throughout the world. VHS was developed by JVC.

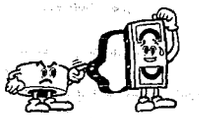
Special Note On Head Cleaning

■ **Video heads are affected by...,**



● Heat and humidity

● Dust



● Damaged dirty tape

● Continuous use

...These may clog the video heads and cause the playback picture to become blurred or interrupted.

If this happens, clean the video heads with the optional cleaning cassette (model number TCL-2) by playing it back for about 10 seconds.

■ If it does not produce a better result, please consult your JVC dealer.

In Case Of Difficulties

POWER AND TAPE TRANSPORT PROBLEMS

Symptoms	Check points
No power is applied to the recorder.	■ Is the mains power cord disconnected? — Connect it.
Clock is functioning properly, but the recorder cannot be powered.	■ Is "TIMER" displayed on the display panel? — Press the TIMER button to turn the "TIMER" indicator off.
Tape does not run during recording.	■ Is "PAUSE" displayed on the display panel? — Press the PLAY button to turn the "PAUSE" indicator off.
Tape stops during rewind or fast-forward.	■ Is the C. MEMORY button pressed? — Press again to make "M" disappear from the display panel.
Tape will not rewind or fast-forward.	■ Is the tape already fully rewound or fast-forwarded? — Check the cassette.

RECORDING PROBLEMS

Symptoms	Check points
Recording cannot be started.	■ Is a cassette loaded? ■ Is the safety tab on the cassette removed? — Reseal the slot with adhesive tape.
TV broadcasts cannot be recorded.	■ Has "AU" been selected? — Set to the desired channel.
Tape-to-tape editing is not possible.	■ Is the camcorder or another video recorder correctly connected? ■ Are all necessary power switches turned ON? ■ Has "AU" been selected? — Set to "AU".
Camera recording is not possible.	■ Is the camcorder correctly connected? ■ Has "AU" been selected? — Set to "AU".
Timer recording is not possible.	■ Have you set the clock correctly and programmed the timer correctly? — Check once again. ■ Is "TIMER" displayed on the display panel? — If not, press the TIMER button to display "TIMER".
Video Plus+ does not timer-record properly.	■ Are recorder's preset position numbers set properly ? (☞ p. 18.) ■ Are remote control's preset position numbers set properly ? (☞ p. 29.)

PLAYBACK PROBLEMS

Symptoms	Check points
Playback picture does not appear while the tape is running.	■ If you are using RF OUT connection, ● is the TV receiver's channel selector set to the correct video channel ? — Set it to the RF converter channel (UHF 36). (☞ p.5) ● did you turn the RF switch to OFF by mistake ? — Turn it back to ON. (☞ p. 13) ■ If you are using AV connection, is the TV receiver set to the AV mode? — Set it to the AV mode.
Noise appears during visual search.	■ This is normal.
Noise appears during normal playback.	■ Is the automatic tracking mode engaged? — Try manual tracking. (☞ p. 21)
Noise appears during slow motion playback.	— Try manual tracking. (☞ p. 21)
Noise appears during still playback.	— Press Pause/Still a few times to remove the noise bars from the screen.
Playback picture is blurred or interrupted while TV broadcasts are clear.	■ Video heads may be dirty. — Head cleaning is necessary. Consult your JVC dealer. (☞ p. 41)
Breaks are noticeable in Hi-Fi audio reproduction.	■ Is the automatic tracking mode engaged? — Try manual tracking.

OTHER PROBLEMS

Symptoms	Check points
Whistling or howling is heard from TV during camera recording.	■ Move camcorder or camera's microphone away from TV or reduce TV sound volume.
Remote control's LCD clock time cannot be transferred to the recorder.	■ Is "TIMER" displayed on the display panel?
Channel cannot be switched.	■ Is recording in progress? — Press the Pause button, change the channel, and press the Play button.
Remote control does not function.	■ Are the batteries discharged? — Replace with new ones. ■ Is the A/B code switch set to the appropriate position? ■ Is the TV/VIDEO code switch set to the appropriate position? — Check once again.
The remote control's LCD characters are "hazy" and difficult to read.	— The remote control's batteries are exhausted. Replace both batteries and set the clock again.

ATTENTION:
This recorder contains microcomputers. External electronic noise or interference could cause malfunctioning. In such cases, switch the power off and unplug the power cord. Then plug it in again and switch on. Take out the cassette. After checking the cassette, operate the unit as usual.